

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application”

Listing of Claims:

Claims 1-13 (Canceled).

Claim 14 (Currently Amended): An apparatus for forming a pattern for a semiconductor device, comprising:

beam shaping means for shaping, to a predetermined shape, one of a charged particle beam and an electromagnetic beam;

positioning means for positioning the position of the beam of the predetermined shape in a single unit region of a substrate with a photosensitive film formed thereon, sequentially forwarding the position in which the beam is to be radiated, butt-joining the single unit region to another single unit region to form a plurality of butt-joined unit regions, and situating butting portions of the butt-joined unit regions constituting the desired exposed region, in a first area of a layer to be formed other than a second area of the layer in which predetermined characteristics of a function of the semiconductor device are determined by a pattern width of the exposed region in association with another pattern formed in another layer; and

shot exposure means for radiating the single unit region with the beam for a predetermined period of time; ~~wherein the shot exposure means repeats and for repeating~~ shot exposure in units of a single unit region to thereby form a desired exposed region, ~~and~~

~~the positioning means sequentially forwards the position in which the beam is to be radiated, butt joins the single unit region to another single unit region to form a plurality of butt joined unit regions, and situates butting portions of the butt joined unit regions constituting the desired exposed region, in a first area of a layer to be formed other than a~~

~~second area of the layer in which predetermined characteristics of a function of the semiconductor device are determined by a pattern width of the exposed region in association with another pattern formed in another layer.~~

Claim 15 (Previously Presented): The apparatus according to claim 14, wherein the positioning means causes the second area in which the butting portions of the unit regions are formed, to correspond to an isolation region employed in the semiconductor device.

Claim 16 (Previously Presented): The apparatus according to claim 14, wherein the positioning means determines the position of the beam such that the second area in which the predetermined characteristics of the predetermined function are determined by the pattern width of the exposed region corresponds to an active region incorporated in a transistor in the semiconductor device.

Claim 17 (Previously Presented): The apparatus according to claim 14, wherein the positioning means determines the position of the beam such that the region in which the predetermined characteristics of the predetermined function are determined by the pattern width of the exposed region corresponds to an electrode region to which an interlayer contact in the semiconductor device is connected.

Claim 18 (Currently Amended): An apparatus for forming a pattern comprising:
beam shaping means for shaping, to a predetermined shape, one of a charged particle beam and an electromagnetic beam;
positioning means for positioning the position of the beam of the predetermined shape in a single unit region of a substrate with a photosensitive film formed thereon, sequentially

forwarding the position in which the beam is to be radiated, and butt-joining the single unit region to another single unit region to form a plurality of butt-joined unit regions; and

shot exposure means for radiating the single unit region with the beam for a predetermined period of time; ~~wherein the shot exposure means subjects~~ and for subjecting predetermined ones of the unit regions to single shot exposure, and the other ones of the unit regions to multiple shot exposure, ~~and~~

~~the positioning means sequentially forwards the position in which the beam is to be radiated, and butt joins the single unit region to another single unit region to form a plurality of butt joined unit regions.~~

19. (Original) The apparatus according to claim 18, wherein the shot exposure means performs the multiple shot exposure by repeating the same shot exposure in the same position.

20. (Original) The apparatus according to claim 18, wherein the shot exposure means performs the multiple shot exposure by changing the butting position of the unit regions in units of a single shot exposure treatment.

21. (Original) The apparatus according to claim 18, wherein the shot exposure means performs the multiple shot exposure by selectively using multiple shot exposure in which the same shot exposure is repeated in the same position, and multiple shot exposure in which the butting position of the unit regions is changed in units of a single shot exposure treatment.

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in view of the following discussion, is respectfully requested.

Claims 14-21 are pending, and Claims 14 and 18 are presently amended. Applicants acknowledge with appreciation the withdrawal of the rejection under 35 U.S.C. § 112, first paragraph.

Applicant respectfully requests entry of the present amendment. In the previous Office Action, mailed April 15, 2003, the claims were not examined on the merits, and the Response to that Office Action did not amend the claims. However, the present Office Action now includes a rejection of the claims on the merits. Since the present rejection on the merits could have been made in the previous Office Action (because the same exact claims were pending), Applicant respectfully requests that the finality of the present Office Action be withdrawn and that the present amendment be entered.

The Manual of Patent Examining Procedure sets forth the situations in which a final rejection is proper on the second Office Action in section 706.07(a):

Under present practice, second or any subsequent actions on the merits shall be final, **except** where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment **of the claims** nor based on information submitted in an Information Disclosure Statement....

M.P.E.P. § 706.07(a) (emphasis added). In this case, Applicant did not make an amendment to the claims in response to the first Office Action and did not submit an IDS. Since the present Office Action rejects the claims on the merits, and the first Office Action contained no rejection on the merits, the finality of the present Office Action should be withdrawn.

Turning now to the outstanding claim objections in the present Office Action, it is noted that Claims 15-17 were objected to for being directed to a method, rather than an

apparatus. Applicant wishes to point out that the Preliminary Amendment filed concurrently with this divisional application on December 10, 2001, corrected the informalities noted by the Examiner. In the event that the Preliminary Amendment was not received by the Office, the Examiner is respectfully requested to contact the undersigned, who will be happy to provide the Examiner with a copy of the Preliminary Amendment and the date-stamped filing receipt.

With respect to the rejection of Claims 14-21 under 35 U.S.C. § 102(b) as being anticipated by Takahashi, Applicants respectfully traverse this rejection in view of the present amendment. The claims are presently amended to move the functional text identified by the Examiner directly into the associated means-plus-function recitations within the claim. In light of this amendment, those functional limitations, as part of a means-plus-function recitation, must be given patentable weight. M.P.E.P. § 2182 (“[T]he application of a prior art reference to a means or step plus function limitation requires that the prior art element perform the identical functions specified in the claim.”).


The Takahashi reference does not teach or suggest an element that performs the functions specified by the “positioning means” and the “shot exposure means” of Claims 14 and 18. Therefore, Claims 14 and 18 and all claims dependent therefrom are believed to patentably distinguish over the Takahashi reference.

Application No. 10/006,133
Reply to Office Action of August 15, 2003

In view of the foregoing discussion, no further issues are believed to be outstanding in the present application. Therefore, Applicant respectfully requests that the present application be allowed and be passed to issue.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Eckhard H. Kuesters', is written over a horizontal line.

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